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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,284

07/27/2006

Dieter Funk

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EXAMINER

SZEWCZYK, CYNTHIA

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

10/05/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com  
offserv@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,284	<b>Applicant(s)</b> FUNK ET AL.	
	<b>Examiner</b> CYNTHIA SZEWCZYK	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 8-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/30/10</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 30, 2010 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "at substantially the same temperature" in lines 5-6. It is unclear what is intended by "substantially the same temperature". Must the sheets be at the same temperature or would a 50° difference be considered "substantially the same temperature"?

5. Claim 15 recites the limitation "at substantially the same temperature" in line 9. It is unclear what is intended by "substantially the same temperature". Must the sheets be

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at the same temperature or would a 50° difference be considered “substantially the same temperature”?

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-4 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over YOSHIZAWA et al. (EP 0398759) in view of KELLAR et al. (US 4,311,503).

YOSHIZAWA teaches a method of heating glass sheets for laminated glass. YOSHIZAWA teaches that the glass sheets may be asymmetrical (p. 2, lines 13-17). YOSHIZAWA teaches that the glass sheets are preheated and press-bent (p. 2, lines 19) and finally cooled in a lehr (p. 3, line 46). YOSHIZAWA discloses that the temperature of the glass sheets is equal after the preheating (p. 2, lines 30-33). YOSHIZAWA is silent to keeping the glass sheets at the same temperature immediately after pressing.

KELLAR teaches a method of controlling temperatures of stacked glass exiting a furnace. KELLAR teaches that it is important to maintain the same temperature in pairs of glass even through the end of bending because if one sheet is not heated enough then it will be difficult to bend while a sheet that is heated too high will lose the shape after bending is complete until the temperature decreases (col. 1 lines 40-54). Therefore it would have been obvious from the reasoning of KELLAR to check that the

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temperature of the glass sheets leaving the press-bending is the same temperature to ensure that both sheets maintain the same curvature.

Regarding claim 2, since KELLAR discloses that it is imperative that glass sheets remain the same temperature even after bending, it would have been obvious to one of ordinary skill in the art to detect the temperature after completion of the bending step. KELLAR also teaches setting up a multitude of detectors throughout the glass process with a detector at the very end of the process (col. 3 line 56 – col. 4 line 13).

Regarding claim 3, YOSHIZAWA discloses that the temperature of the glass sheets at the end of the preheating is used as the control parameter (p. 4, lines 10-15).

Regarding claim 4, KELLAR teaches that higher temperature glass sheets may lose their shape if not pressed for enough time to adjust the temperature to a lower temperature (col. 1 lines 50-54).

Regarding claim 15, see the discussion of claims 1 and 2 above.

Regarding claim 16, as discussed in claim 2, since KELLAR stresses the importance of maintaining the same temperature in glass sheets even through the end of pressing, it would have been obvious to one of ordinary skill in the art to place a temperature detector at the exit of the press-bending station.

Regarding claim 17, see the discussion of claim 2.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over YOSHIZAWA et al. (EP 0398759) in view of KELLAR et al. (US 4,311,503) as applied to claims 1-4 and 15-17 above, and further in view of HERRINGTON et al. (US 4,952,227).

YOSHIZAWA as modified by KELLAR teaches a method of heating glass sheets for laminated glass. Modified YOSHIZAWA is silent as to the use of an intermediate cooling air.

HERRINGTON teaches a method of bending glass sheets wherein the apparatus is controlled to adjust operating parameters based on properties of the glass sheet running through similar to the process of modified YOSHIZAWA. HERRINGTON teaches that it is necessary to provide cooling air to the preheating area to prevent the glass from over heating (col. 7, lines 3-18). It would have been obvious to one of ordinary skill to provide cooling air to the preheater of modified YOSHIZAWA because modified YOSHIZAWA discloses that it is necessary to control the temperature of the glass so that it does not overheat to the extent that deformation control would be lost (col. 5, lines 46-51).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over YOSHIZAWA et al. (EP 0398759) in view of KELLAR et al. (US 4,311,503) and HERRINGTON et al. (US 4,952,227) as applied to claims 1-6 and 15-17 above, and further in view of BAMFORD et al. (US 4,043,782).

YOSHIZAWA as modified by KELLAR and HERRINGTON teaches a method of heating glass sheets for laminated glass wherein air cooling is used as an intermediate cooling to avoid overheating of the glass. Modified YOSHIZAWA is silent as to the blowing pressure of the air.

BAMFORD teaches a method of bending thin glass sheets for automobile windows. BAMFORD discloses that the glass undergoes tempering with air blowing under low pressure (col. 7, lines 35-40). BAMFORD discloses that the glass undergoes a first tempering at high air pressure and a second tempering at a lower air pressure of about 1 to 3 psi (col. 9, lines 1-4) or about 69 to 206 mbar. It would have been obvious to one of ordinary skill in the art to set the air blowers of modified YOSHIZAWA to a blowing pressure below this range because it would avoid tempering the glass too early.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-7 and 15-17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Daniels can be reached on (571) 272-2450. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS

/Matthew J. Daniels/  
Supervisory Patent Examiner, Art Unit 1791